



## SEQUENCE LISTING

<110> CHEN, HONG-HWA  
TSAI, WEN-CHIEH  
CHEN, WEN-HUEI

<120> DNA MOLECULE ENCODING DEF-LIKE MADS-BOX-GENES FROM PHALAENOPSIS ORCHID

<130> U 014863-8

<140> 10/690,246

<141> 2003-10-21

<150> TW 091125320

<151> 2002-10-25

<160> 48

<170> PatentIn version 3.2

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30 35 40

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95 100 105

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110 115 120

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Glu Gln Thr Leu Glu Glu Ser Leu Arg Ile Val Arg His Arg Lys Tyr	
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His Val Ile Ala Thr Gln Thr Asp Thr Tyr Lys Lys Lys Leu Lys Ser	
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Thr Arg Glu Thr Tyr Arg Ala Leu Ile His Glu Leu Asp Met Lys Glu	
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Glu Asn Ser Ile Pro Met Val Asn Glu Cys Pro Gln Met Phe Ser Phe	
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Arg Val Val His Pro Asn Gln Pro Asn Leu Leu Gly Leu Gly Tyr Glu	
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Ser His Asp Leu Ser Leu Ala	
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85 90 95	

Ile Asn Gln Asn Leu Arg Lys Glu Ile Arg Arg Arg Lys Gly Glu Glu  
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Leu Glu Gly Met Asp Ile Lys Gln Leu Arg Gly Leu Glu Gln Thr Leu  
115 120 125

Glu Glu Ser Leu Arg Ile Val Arg His Arg Lys Tyr His Val Ile Ala  
130 135 140

Thr Gln Thr Asp Thr Tyr Lys Lys Lys Leu Lys Ser Thr Arg Glu Thr  
145 150 155 160

Tyr Arg Ala Leu Ile His Glu Leu Asp Met Lys Glu Glu Asn Pro Asn  
165 170 175

Tyr Gly Phe Asn Val Glu Asn Gln Ser Arg Ile Tyr Glu Asn Ser Ile  
180 185 190

Pro Met Val Asn Glu Cys Pro Gln Met Phe Ser Phe Arg Val Val His  
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Asn Pro Thr Asn Arg Gln Val Thr Tyr Ser Lys Arg Arg Ala Gly Ile  
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Thr	Thr	Asp	Thr	Lys	Ser	Val	Tyr	Asp	Arg	Tyr	Gln	Gln	Val	Ser	Gly		
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ata	aat	tta	tgg	agc	gag	cag	tac	gag	aag	atg	cag	aat	acg	ttg	aat	471	
Ile	Asn	Leu	Trp	Ser	Glu	Gln	Tyr	Glu	Lys	Met	Gln	Asn	Thr	Leu	Asn		
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Met	Gly	Glu	Asp	Leu	Glu	Gly	Leu	Glu	Ile	Lys	Glu	Leu	Arg	Gly	Leu		
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Glu	Gln	Asn	Met	Asp	Glu	Ala	Leu	Lys	Leu	Val	Arg	Asn	Arg	Lys	Tyr		
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His	Val	Ile	Ser	Thr	Gln	Thr	Asp	Thr	Phe	Lys	Lys	Lys	Leu	Lys	Asn		
				145					150					155			
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Ser	Gln	Glu	Thr	His	Arg	Asn	Leu	Leu	Arg	Glu	Leu	Glu	Thr	Glu	His		
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Ala	Val	Tyr	Tyr	Val	Asp	Asp	Asp	Pro	Asn	Asn	Tyr	Asp	Gly	Ala	Leu		
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Ala	Leu	Gly	Asn	Gly	Ala	Ser	Tyr	Leu	Tyr	Ser	Phe	Arg	Thr	Gln	Pro		
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Leu	Ala																
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35 40 45

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Lys Ser Val Tyr Asp Arg Tyr Gln Gln Val Ser Gly Ile Asn Leu Trp  
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Ser Glu Gln Tyr Glu Lys Met Gln Asn Thr Leu Asn His Leu Lys Glu  
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Ile Asn His Asn Leu Arg Arg Glu Ile Arg Gln Arg Met Gly Glu Asp  
100 105 110

Leu Glu Gly Leu Glu Ile Lys Glu Leu Arg Gly Leu Glu Gln Asn Met  
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Asp Glu Ala Leu Lys Leu Val Arg Asn Arg Lys Tyr His Val Ile Ser  
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Thr Gln Thr Asp Thr Phe Lys Lys Lys Leu Lys Asn Ser Gln Glu Thr  
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His Arg Asn Leu Leu Arg Glu Leu Glu Thr Glu His Ala Val Tyr Tyr  
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Val Asp Asp Asp Pro Asn Asn Tyr Asp Gly Ala Leu Ala Leu Gly Asn  
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agctttcttc ctcattcttc cgttctgtca acatcactaa tcaactgtgt ttcagtagac 180  
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Lys	Arg	Arg	Ala	Gly	Ile	Met	Lys	Lys	Ala	Arg	Glu	Ile	Thr	Val	Leu		
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tgc	gat	gct	gag	ggt	tcg	ctt	atc	atg	ttc	tcg	agt	act	ggg	aag	ttt		377
Cys	Asp	Ala	Glu	Val	Ser	Leu	Ile	Met	Phe	Ser	Ser	Thr	Gly	Lys	Phe		
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Ser	Glu	Tyr	Cys	Ser	Pro	Ser	Thr	Glu	Thr	Lys	Val	Phe	Glu	Arg			
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Tyr	Gln	Gln	Val	Ser	Gly	Ile	Asn	Leu	Trp	Ser	Ser	Gln	Tyr	Glu	Lys		
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Met	Leu	Asn	Thr	Leu	Asn	His	Ser	Lys	Glu	Ile	Asn	Arg	Asn	Leu	Arg		
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agg	gaa	gta	agg	cag	agg	atg	ggg	gaa	gat	ctt	gag	gga	ctg	gat	atc		569
Arg	Glu	Val	Arg	Gln	Arg	Met	Gly	Glu	Asp	Leu	Glu	Gly	Leu	Asp	Ile		
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Val	Arg	Asn	Arg	Lys	Tyr	His	Val	Ile	Ser	Thr	Gln	Thr	Asp	Thr	Tyr		
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Lys	Lys	Lys	Leu	Lys	Asn	Ser	Gln	Glu	Thr	His	Arg	Asn	Leu	Met	His		
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Lys Lys Val Phe Glu Arg Tyr Gln Gln Val Ser Gly Ile Asn Leu Trp  
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Ser Ser Gln Tyr Glu Lys Met Leu Asn Thr Leu Asn His Ser Lys Glu  
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Ile Asn Arg Asn Leu Arg Arg Glu Val Arg Gln Arg Met Gly Glu Asp  
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115 120 125

Asp Glu Ala Leu Lys Leu Val Arg Asn Arg Lys Tyr His Val Ile Ser  
130 135 140

Thr Gln Thr Asp Thr Tyr Lys Lys Lys Leu Lys Asn Ser Gln Glu Thr  
145 150 155 160

His Arg Asn Leu Met His Glu Leu Glu Ile Val Glu Asp His Pro Val  
165 170 175

Tyr Gly Phe His Glu Asp Ser Ser Asn Tyr Glu Gly Val Leu Ala Leu  
180 185 190

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Ser Arg Gln Val Thr Tyr Ser Lys Arg Arg Leu Gly Ile Met Lys Lys	
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gca gag gaa ctc aca gtg ctc tgc gac gct caa ctc tca ctc atc atc	263
Ala Glu Glu Leu Thr Val Leu Cys Asp Ala Gln Leu Ser Leu Ile Ile	
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Phe Ser Ser Ser Gly Lys Leu Ala Asp Phe Cys Ser Pro Ser Thr Asp	
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Val Lys Asp Ile Val Glu Arg Tyr Gln Asn Val Thr Gly Ile Asp Ile	
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Trp Asp Ala Gln Tyr Gln Arg Met Gln Asn Thr Leu Arg Asn Leu Arg	
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Glu Ile Asn Arg Asn Leu Gln Lys Glu Ile Arg Gln Arg Lys Gly Glu	
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aat ctg gaa ggg ttg ggc gtt aaa gag ctg cgc ggt ctt gag caa aaa	503
Asn Leu Glu Gly Leu Gly Val Lys Glu Leu Arg Gly Leu Glu Gln Lys	
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Leu Glu Glu Ser Val Lys Ile Val Arg Gln Arg Lys Tyr His Val Ile	
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Ala Thr Gln Thr Asp Thr Cys Arg Lys Lys Leu Lys Ser Ser Arg Gln	
145 150 155	
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Ile Tyr Arg Ala Leu Thr His Glu Leu Gln Lys Leu Asp Glu Glu Asn	
160 165 170 175	
caa ccg tgc agt ttt ctc gta gaa gat cta agc tgc atc tat gac agc	695
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180 185 190	
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Ser Ile Ser Met Ala Asn Arg Leu His Arg Ser Glu Pro Asn Val Gln	
195 200 205	
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210

215

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&lt;211&gt; 219

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&lt;400&gt; 8

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Arg Gln Val Thr Tyr Ser Lys Arg Arg Leu Gly Ile Met Lys Lys Ala  
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 35 40 45

Ser Ser Ser Gly Lys Leu Ala Asp Phe Cys Ser Pro Ser Thr Asp Val  
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Lys Asp Ile Val Glu Arg Tyr Gln Asn Val Thr Gly Ile Asp Ile Trp  
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Asp Ala Gln Tyr Gln Arg Met Gln Asn Thr Leu Arg Asn Leu Arg Glu  
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Ile Asn Arg Asn Leu Gln Lys Glu Ile Arg Gln Arg Lys Gly Glu Asn  
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Leu Glu Gly Leu Gly Val Lys Glu Leu Arg Gly Leu Glu Gln Lys Leu  
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Glu Glu Ser Val Lys Ile Val Arg Gln Arg Lys Tyr His Val Ile Ala  
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Thr Gln Thr Asp Thr Cys Arg Lys Lys Leu Lys Ser Ser Arg Gln Ile  
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Tyr Arg Ala Leu Thr His Glu Leu Gln Lys Leu Asp Glu Glu Asn Gln  
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Pro Cys Ser Phe Leu Val Glu Asp Leu Ser Cys Ile Tyr Asp Ser Ser  
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<211> 19  
<212> DNA  
<213> Artificial

<220>  
<223> PeMADS4-specific internal reverse primer

<400> 22  
cacagaatca cacatagca 19

<210> 23  
<211> 18  
<212> DNA  
<213> Artificial

<220>  
<223> PeMADS5-specific internal forward primer

<400> 23  
caaacagaca cttgcagg 18

<210> 24  
<211> 25  
<212> DNA  
<213> Artificial

<220>  
<223> PeMADS5-specific internal reverse primer

<400> 24  
tcctatgatg ttaagccatg aaaac 25

<210> 25  
<211> 13

<212> PRT  
<213> Artificial

<220>  
<223> PI-derived motif

<220>  
<221> misc\_feature  
<222> (2)..(2)  
<223> Xaa can be any naturally occurring amino acid

<400> 25

Phe Xaa Phe Arg Leu Gln Pro Ser Gln Pro Asn Leu His  
1 5 10

<210> 26  
<211> 9  
<212> PRT  
<213> Artificial

<220>  
<223> paleoAP3 motif

<220>  
<221> misc\_feature  
<222> (3)..(3)  
<223> Xaa can be any naturally occurring amino acid

<400> 26

Tyr Gly Xaa His Asp Leu Arg Leu Ala  
1 5

<210> 27  
<211> 208  
<212> PRT  
<213> Arabidopsis sp.

<400> 27

Met Gly Arg Gly Lys Ile Glu Ile Lys Arg Ile Glu Asn Ala Asn Asn  
1 5 10 15

Arg Val Val Thr Phe Ser Lys Arg Arg Asn Gly Leu Val Lys Lys Ala  
20 25 30

Lys Glu Ile Thr Val Leu Cys Asp Ala Lys Val Ala Leu Ile Ile Phe  
35 40 45

Ala Ser Asn Gly Lys Met Ile Asp Tyr Cys Cys Pro Ser Met Asp Leu  
50 55 60

Gly Ala Met Leu Asp Gln Tyr Gln Lys Leu Ser Gly Lys Lys Leu Trp  
65 70 75 80

Asp Ala Lys His Glu Asn Leu Ser Asn Glu Ile Asp Arg Ile Lys Lys

85

90

95

Glu Asn Asp Ser Leu Gln Leu Glu Leu Arg His Leu Lys Gly Glu Asp  
100 105 110

Ile Gln Ser Leu Asn Leu Lys Asn Leu Met Ala Val Glu His Ala Ile  
115 120 125

Glu His Gly Leu Asp Lys Val Arg Asp His Gln Met Glu Ile Leu Ile  
130 135 140

Ser Lys Arg Arg Asn Glu Lys Met Met Ala Glu Glu Gln Arg Gln Leu  
145 150 155 160

Thr Phe Gln Leu Gln Gln Gln Glu Met Ala Ile Ala Ser Asn Ala Arg  
165 170 175

Gly Met Met Met Arg Asp His Asp Gly Gln Phe Gly Tyr Arg Val Gln  
180 185 190

Pro Ile Gln Pro Asn Leu Gln Glu Lys Ile Met Ser Leu Val Ile Asp  
195 200 205

<210> 28  
<211> 210  
<212> PRT  
<213> rice

<400> 28

Met Gly Arg Gly Lys Ile Glu Ile Lys Arg Ile Glu Asn Ser Thr Asn  
1 5 10 15

Arg Gln Val Thr Phe Ser Lys Arg Arg Ser Gly Ile Leu Lys Lys Ala  
20 25 30

Arg Glu Ile Gly Val Leu Cys Asp Arg Glu Val Gly Val Val Ile Phe  
35 40 45

Ser Ser Ala Gly Lys Leu Ser Asp Tyr Cys Thr Pro Lys Thr Thr Leu  
50 55 60

Ser Arg Ile Leu Glu Lys Tyr Gln Thr Asn Ser Gly Lys Ile Leu Trp  
65 70 75 80

Asp Glu Lys His Lys Ser Leu Ser Ala Glu Ile Asp Arg Val Lys Lys  
85 90 95

Glu Asn Asp Asn Met Gln Ile Glu Leu Arg His Met Lys Gly Glu Asp  
100 105 110

Leu Asn Ser Leu Gln Pro Lys Glu Leu Ile Ala Ile Glu Glu Ala Leu  
115 120 125

Asn Asn Gly Gln Ala Asn Leu Arg Asp Lys Met Met Asp His Trp Arg  
130 135 140

Met His Lys Arg Asn Glu Lys Met Leu Glu Asp Glu His Lys Met Leu  
145 150 155 160

Ala Phe Arg Val His Gln Gln Glu Val Glu Leu Ser Gly Gly Ile Arg  
165 170 175

Glu Leu Glu Leu Gly Tyr His His Asp Asp Arg Asp Phe Ala Ala Ser  
180 185 190

Met Pro Phe Thr Phe Arg Val Gln Pro Ser His Pro Asn Leu Gln Gln  
195 200 205

Glu Lys  
210

<210> 29  
<211> 227  
<212> PRT  
<213> Antirrhium

<400> 29

Met Ala Arg Gly Lys Ile Gln Ile Lys Arg Ile Glu Asn Gln Thr Asn  
1 5 10 15

Arg Gln Val Thr Tyr Ser Lys Arg Arg Asn Gly Leu Phe Lys Lys Ala  
20 25 30

His Glu Leu Ser Val Leu Cys Asp Ala Lys Val Ser Ile Ile Met Ile  
35 40 45

Ser Ser Thr Gln Lys Leu His Glu Tyr Ile Ser Pro Thr Thr Ala Thr  
50 55 60

Lys Gln Leu Phe Asp Gln Tyr Gln Lys Ala Val Gly Val Asp Leu Trp  
65 70 75 80

Ser Ser His Tyr Glu Lys Met Gln Glu His Leu Lys Lys Leu Asn Glu  
85 90 95

Val Asn Arg Asn Leu Arg Arg Glu Ile Arg Gln Arg Met Gly Glu Ser  
100 105 110

Leu Asn Asp Leu Gly Tyr Glu Gln Ile Val Asn Leu Ile Glu Asp Met  
115 120 125

Asp Asn Ser Leu Lys Leu Ile Arg Glu Arg Lys Tyr Lys Val Ile Ser  
130 135 140

Asn Gln Ile Asp Thr Ser Lys Lys Lys Val Arg Asn Val Glu Glu Ile  
145 150 155 160

His Arg Asn Leu Val Leu Glu Phe Asp Ala Arg Arg Glu Asp Pro His  
165 170 175

Phe Gly Leu Val Asp Asn Glu Gly Asp Tyr Asn Ser Val Leu Gly Phe  
180 185 190

Pro Asn Gly Gly Pro Arg Ile Ile Ala Leu Arg Leu Pro Thr Asn His  
195 200 205

His Pro Thr Leu His Ser Gly Gly Gly Ser Asp Leu Thr Thr Phe Ala  
210 215 220

Leu Leu Glu  
225

<210> 30  
<211> 232  
<212> PRT  
<213> Arabidopsis sp.

<400> 30

Met Ala Arg Gly Lys Ile Gln Ile Lys Arg Ile Glu Asn Gln Thr Asn  
1 5 10 15

Arg Gln Val Thr Tyr Ser Lys Arg Arg Asn Gly Leu Phe Lys Lys Ala  
20 25 30

His Glu Leu Thr Val Leu Cys Asp Ala Arg Val Ser Ile Ile Met Phe  
35 40 45

Ser Ser Ser Asn Lys Leu His Glu Tyr Ile Ser Pro Asn Thr Thr Thr  
50 55 60

Lys Glu Ile Val Asp Leu Tyr Gln Thr Ile Ser Asp Val Asp Val Trp  
65 70 75 80

Ala Thr Gln Tyr Glu Arg Met Gln Glu Thr Lys Arg Lys Leu Leu Glu  
85 90 95

Thr Asn Arg Asn Leu Arg Thr Gln Ile Lys Gln Arg Leu Gly Glu Cys  
100 105 110

Leu Asp Glu Leu Asp Ile Gln Glu Leu Arg Arg Leu Glu Asp Glu Met  
115 120 125



Glu Asn Thr Phe Lys Leu Val Arg Glu Arg Lys Phe Lys Ser Leu Gly  
130 135 140

Asn Gln Ile Glu Thr Thr Met Lys Lys Asn Lys Ser Gln Gln Gly Ile  
145 150 155 160

Gln Lys Asn Leu Ile His Glu Leu Glu Leu Arg Ala Glu Asp Pro His  
165 170 175

Tyr Gly Leu Val Asp Asn Gly Gly Asp Tyr Asp Ser Val Leu Gly Tyr  
180 185 190

Gln Ile Glu Gly Ser Arg Ala Tyr Ala Leu Arg Phe His Gln Asn His  
195 200 205

His His Tyr Tyr Pro Asn His Gly Leu His Ala Pro Ser Ala Ser Asp  
210 215 220

Ile Ile Thr Phe His Leu Leu Glu  
225 230

<210> 31  
<211> 223  
<212> PRT  
<213> rice

<400> 31

Met Gly Arg Gly Lys Ile Glu Ile Lys Arg Ile Lys Asn Ala Thr Asn  
1 5 10 15

Arg Gln Val Thr Tyr Ser Lys Arg Arg Thr Gly Ile Met Lys Lys Ala  
20 25 30

Arg Glu Leu Thr Val Leu Cys Asp Ala Gln Val Ala Ile Ile Met Phe  
35 40 45

Ser Ser Thr Gly Lys Tyr His Glu Phe Cys Ser Pro Ser Thr Asp Ile  
50 55 60

Lys Gly Ile Phe Asp Arg Tyr Gln Gln Ala Ile Gly Thr Ser Leu Trp  
65 70 75 80

Ile Glu Gln Tyr Glu Asn Met Gln Arg Thr Leu Ser His Leu Lys Asp  
85 90 95

Ile Asn Arg Asn Leu Arg Thr Glu Ile Arg Gln Arg Met Gly Glu Asp  
100 105 110

Leu Asp Gly Leu Glu Phe Asp Glu Leu Arg Gly Leu Glu Gln Asn Val  
115 120 125

Asp Ala Ala Leu Lys Glu Val Arg His Arg Lys Tyr His Val Ile Ser  
130 135 140

Thr Gln Thr Glu Thr Tyr Lys Lys Lys Val Lys His Ser Tyr Glu Ala  
145 150 155 160

Tyr Lys Thr Leu Gln Gln Glu Leu Gly Leu Cys Glu Glu Pro Ala Trp  
165 170 175

Phe Val Asp Asn Thr Gly Gly Gly Trp Asp Gly Gly Ala Gly Ala Gly  
180 185 190

Ala Ala Ala Asp Met Phe Ala Phe Arg Val Val Pro Ser Gln Pro Asn  
195 200 205

Leu His Gly Met Ala Tyr Gly Gly Asn His Asp Leu Arg Leu Gly  
210 215 220

<210> 32  
<211> 227  
<212> PRT  
<213> maize

<400> 32

Met Gly Arg Gly Lys Ile Glu Ile Lys Arg Ile Glu Asn Ala Thr Asn  
1 5 10 15

Arg Gln Val Thr Tyr Ser Lys Arg Arg Thr Gly Ile Met Lys Lys Ala  
20 25 30

Arg Glu Leu Thr Val Leu Cys Asp Ala Gln Val Ala Ile Ile Met Phe  
35 40 45

Ser Ser Thr Gly Lys Tyr His Glu Phe Cys Ser Pro Gly Thr Asp Ile  
50 55 60

Lys Thr Ile Phe Asp Arg Tyr Gln Gln Ala Ile Gly Thr Ser Leu Trp  
65 70 75 80

Ile Glu Gln Tyr Glu Asn Met Gln Arg Thr Leu Ser His Leu Lys Asp  
85 90 95

Ile Asn Arg Gly Leu Arg Thr Glu Ile Arg Gln Arg Met Gly Glu Asp  
100 105 110

Leu Asp Ser Leu Asp Phe Asp Glu Leu Arg Gly Leu Glu Gln Asn Val  
115 120 125

Asp Ala Ala Leu Lys Glu Val Arg His Arg Lys Tyr His Val Ile Ser  
130 135 140

Thr Gln Thr Asp Thr Tyr Lys Lys Lys Val Lys His Ser His Glu Ala  
145 150 155 160

Tyr Lys Asn Leu Gln Gln Glu Leu Gly Met Arg Glu Asp Pro Ala Phe  
165 170 175

Gly Tyr Val Asp Asn Thr Gly Ala Gly Val Ala Trp Asp Gly Ala Ala  
180 185 190

Ala Ala Leu Gly Gly Ala Pro Pro Asp Met Tyr Ala Phe Arg Val Val  
195 200 205

Pro Ser Gln Pro Asn Leu His Gly Met Ala Tyr Gly Phe His Asp Leu  
210 215 220

Arg Leu Gly  
225

<210> 33  
<211> 228  
<212> PRT  
<213> *Lilium longiflorum*

<400> 33

Met Gly Arg Gly Lys Ile Glu Ile Lys Lys Ile Glu Asn Ser Thr Asn  
1 5 10 15

Arg Gln Val Thr Tyr Ser Lys Arg Arg Thr Gly Ile Ile Lys Lys Ala  
20 25 30

Thr Glu Leu Thr Val Leu Cys Asp Ala Glu Val Ser Leu Leu Met Phe  
35 40 45

Ser Ser Thr Gly Lys Leu Ser Glu Phe Cys Ser Pro Ser Thr Asp Thr  
50 55 60

Lys Lys Ile Phe Asp Arg Tyr Gln Gln Leu Ser Gly Ile Asn Leu Trp  
65 70 75 80

Ser Ala Gln Tyr Glu Lys Met Gln Asn Thr Leu Asn His Leu Ser Glu  
85 90 95

Ile Asn Arg Asn Leu Arg Lys Glu Ile Ser Gln Arg Met Gly Glu Glu  
100 105 110

Leu Asp Gly Leu Asp Ile Lys Asp Leu Arg Gly Leu Glu Gln Asn Leu  
115 120 125

Asp Glu Ala Leu Lys Leu Val Arg His Arg Lys Tyr His Val Ile Asn  
130 135 140

Thr Gln Thr Glu Thr Tyr Lys Lys Lys Val Lys Asn Ser Glu Glu Ala  
145 150 155 160

His Lys Asn Leu Leu Arg Asp Leu Val Asn Arg Glu Met Lys Asp Glu  
165 170 175

Asn Pro Val Tyr Gly Tyr Val Asp Glu Asp Pro Ser Asn Tyr Asp Gly  
180 185 190

Gly Leu Gly Leu Ala Asn Gly Ala Ser His Leu Tyr Glu Phe Arg Val  
195 200 205

Gln Pro Ser Gln Pro Asn Leu His Gly Met Gly Tyr Gly Ser His Asp  
210 215 220

Leu Arg Leu Ala  
225

<210> 34  
<211> 30  
<212> PRT  
<213> Lysopersicon esculentum

<400> 34

Val His Asn Leu Tyr Ala Phe Arg Leu Gln Pro Leu His Pro Asn Leu  
1 5 10 15

Gln Asn Glu Gly Gly Phe Gly Ser Arg Asp Leu Arg Leu Ser  
20 25 30

<210> 35  
<211> 32  
<212> PRT  
<213> rice

<400> 35

Gly Ala Ala Ala Asp Met Phe Ala Phe Arg Val Val Pro Ser Gln Pro  
1 5 10 15

Asn Leu His Gly Met Ala Tyr Gly Gly Asn His Asp Leu Arg Leu Gly  
20 25 30

<210> 36  
<211> 32  
<212> PRT  
<213> Triticum aestivum

<400> 36

Gly Leu Ala Ala Asp Met Tyr Ala Phe Arg Val Val Pro Ser Gln Pro  
1 5 10 15

Asn Leu His Gly Met Ala Tyr Gly Gly Ser His Asp Leu Arg Leu Gly

20

25

30

<210> 37  
 <211> 31  
 <212> PRT  
 <213> maize

<400> 37

Gly Ala Pro Pro Asp Met Tyr Ala Phe Arg Val Val Pro Ser Gln Pro  
 1 5 10 15

Asn Leu His Gly Met Ala Tyr Gly Phe His Asp Leu Arg Leu Gly  
 20 25 30

<210> 38  
 <211> 31  
 <212> PRT  
 <213> Sagittaria montevidensis

<400> 38

Arg Pro Ala Asp Val Gly Tyr Ala Phe His His Ser Ala Gly Gln Ser  
 1 5 10 15

Asn Val His Asp Val Gly Tyr Gly Phe His Glu Leu Arg Leu Ala  
 20 25 30

<210> 39  
 <211> 28  
 <212> PRT  
 <213> Phalaenopsis equestris

<400> 39

Ser Tyr Leu Tyr Ser Phe Arg Thr Gln Pro Ser Gln Pro Asn Leu Gln  
 1 5 10 15

Gly Val Gly Tyr Val Pro His Asp Leu Arg Leu Ala  
 20 25

<210> 40  
 <211> 29  
 <212> PRT  
 <213> Phalaenopsis equestris

<400> 40

Pro Gln Met Phe Ser Phe Arg Val Val His Pro Asn Gln Pro Asn Leu  
 1 5 10 15

Leu Gly Leu Gly Tyr Glu Ser His Asp Leu Ser Leu Ala  
 20 25

<210> 41  
 <211> 29  
 <212> PRT

<213> Phalaenopsis equestris

<400> 41

Ser His His Tyr Ala Phe Arg Val Gln Pro Asn Gln Gln Asn Leu Gln  
1 5 10 15

Gly Thr Gly Tyr Ser Ser His Met Asp Leu Arg Leu Ala  
20 25

<210> 42

<211> 31

<212> PRT

<213> Lilium longiflorum

<400> 42

Asn Gly Ala Ser His Leu Tyr Glu Phe Arg Val Gln Pro Ser Gln Pro  
1 5 10 15

Asn Leu His Gly Met Gly Tyr Gly Ser His Asp Leu Arg Leu Ala  
20 25 30

<210> 43

<211> 29

<212> PRT

<213> Papaver nudicaule

<400> 43

Pro Asn Ile Phe Ala Phe Arg Leu Gln Pro Ser Gln Pro Asn Leu His  
1 5 10 15

Asn Gly Gly Gly Tyr Asn Cys His Asp Leu Arg Leu Ala  
20 25

<210> 44

<211> 17

<212> PRT

<213> Magnolia figo

<400> 44

Ala His Ile Leu His Asp Thr Gly Phe Gly Ile His Asp Leu Arg Leu  
1 5 10 15

Ala

<210> 45

<211> 29

<212> PRT

<213> Dicentra eximia

<400> 45

Gln Asn Ile Phe Ala Phe Arg Leu Gln Pro Ser Gln Pro Asn Leu His  
1 5 10 15

Asp Gly Gly Gly Tyr Gly Ser His Asp Leu Arg Leu Ala  
20 25

<210> 46  
<211> 31  
<212> PRT  
<213> Phalaenopsis equestris

<400> 46

Tyr Asp Ser Ser Ile Ser Met Ala Asn Arg Leu His Arg Ser Glu Pro  
1 5 10 15

Asn Val Gln Lys Val Val Arg Glu Cys His Glu Phe Gly Phe Asp  
20 25 30

<210> 47  
<211> 14  
<212> PRT  
<213> Dianthus caryophyllus

<400> 47

Ala Ala Ala Asn Leu Phe Ala Leu Ser Arg His Pro Ile Thr  
1 5 10

<210> 48  
<211> 20  
<212> PRT  
<213> Artificial

<220>

<223> Artificial PI motif-derived and PaleoAP3 motif

<400> 48

Phe Phe Arg Leu Gln Pro Ser Gln Pro Asn Leu His Tyr Gly His Asp  
1 5 10 15

Leu Arg Leu Ala  
20